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1 4 APR 1960

MEMORANDUM FOR: Chief, Development Projects Division, DD/P

SUBJECT : Modifications to Systems VI and VII

- 1. A meeting was held in the office of the ELINT Staff Officer on ll April to discuss modifications to Systems VI and VII. Present were Mr. Bussler from your Division, Mr. Willis and Mr. Plaster from the ELINT Staff, and myself.
- 2. It was understood that approval for those recommended changes listed below for System VI has already taken place:
 - (a) In-flight switching of antennas.
 - (b) Increase of S-band sensitivity through the installation of TWT preamplifiers.
 - (c) Modification of two antennas to permit the simultaneous intercept of both S- and X-band signals through a common antenna, these antennas to be employed on those future missions when the individual S- and X-band antennas cannot be employed.
- 3. Until such time as the modification mentioned in paragraph 2 (c) above can be accomplished, it was concluded that the X-band portion of System VI should be carried on all future missions involving System VII also. The S-band portion would consequently be removed.
- 4. With regard to HRB's suggested modifications to System VII, the following conclusions were arrived at:
 - (a) The suggestion to match the impedance between the antenna and the preamp to improve sensitivity appears to be a valid one. The entire antenna system should be peaked to 71 Mc.

25 YEAR RE-REVIEW



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- (b) The extracted synch should be removed from the regenerated video channel. No analog producers are currently using this extracted synch, nor can they use it in the future since it appears on the same channel as the regenerated video.
- (c) The bandwidth of three of the six receivers should be lowered to 1.5 Mc, and these three receivers should be centered on 66, 71, and 76 Mc. The other three receivers should retain their 3.7 Mc bandwidth and also should be centered on the same three frequencies. Linear detectors should be employed with the 1.5 Mc bandwidth receivers.
- 5. It was further recommended that accurate pre-flight and post-flight system sensitivity figures be taken and included in the logs forwarded with the tapes for all systems.
- 6. The purpose of this memorandum is to inform you of the results of this meeting and also to present the findings in writing in order that no confusion will result.

ELINT Staff Officer

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